

Meeting Summary – June 2, 2010 GAT – NRC Meeting

GAT team members met with the NRC on June 2, 2010 to provide a general update on activities and to receive NRC feedback on the results of the Purdue Gas Transport tests and our work on the simplified equation. The non-proprietary presentations used during the meeting are posted on the NEI Gas Accumulation web board in the "Documents" section in a window entitled "June 2, 2010 NRC Meeting".

The following summarizes decisions and actions identified during the meeting.

NRC General Status

- NRC expects to endorse rev 1 of NEI 09-10 via a RIS (Regulatory Issue Summary), but the decision is not final yet.
 - **ACTION:** NEI will identify precedents for endorsement via a RIS vs a Reg Guide
- NRC is considering a fee waiver on its expected endorsement of a revision to NEI 09-10
- NRC is planning a regulatory guide to document part of its temporary instruction and to reference NEI 09-10 and the RIS that endorses it. Industry will have opportunities to engage the NRC as the Reg Guide is developed.

General Status Update

- Industry intends to make a draft of the simplified equation report and the Purdue test report available to the NRC prior to the next scheduled meeting (September). Whether this will be done by submittal or by making the documents available for NRC review remains to be determined.
 - **ACTION:** PWROG and BWROG determine the method for allowing NRC access to the draft reports.
- Guidance on vortex formation needs to be developed.
 - **ACTION:** Industry and NRC develop guidance on vortex formation for inclusion in revision 1 to NEI 09-10
- The NEI 09-10 revision schedule was discussed. Rev 1 is scheduled to be complete by the end of 2010. The NRC asked if some of the documents referenced in revision 0 (specifically references 5, 6, 7, 11, 12, 13, 14, and 15) would be incorporated into rev 1. If not, they may need to be formally submitted to the NRC as they may need to be reviewed as part of the NRC endorsement process.
 - **ACTION:** NRC will send its comments on NEI 09-10 rev 0 to NEI so that their comments can be considered during the development of rev 1.
 - **ACTION:** Industry will determine how it intends to use the references listed by the NRC and determine if they need to be formally submitted as part of the rev 1 NRC review.

Simplified Equation Status

- The status of the simplified equation was summarized during the open portion of the meeting and discussed in detail during the closed proprietary portion of the meeting.
- The table of allowable pump void criteria was discussed. The NRC brought a revised version of the table to the meeting that included several additional values that were interpolated from the information in the table. The NRC's revised table has been referenced by NRC inspectors at some sites. The industry explained that the open cells in the table did not indicate missing information; they were just an artifact of the table's format. The industry prepared a revised version of the table that did not leave any open cells. The NRC acknowledged that its revision of the table was due to a misunderstanding and tentatively agreed to adopt the industry's new version of the table. The industry's version is posted on the NEI Gas Accumulation Web Board under the document title "Revised Pump Void Criteria Table".
 - **ACTION:** NRC communicate the revised and clarified version of the pump void criteria table – this was complete on June 7, 2010.

Purdue Test Status

- The status of the Purdue Gas Transport Testing was summarized during the open portion of the meeting and discussed in detail during the closed proprietary portion of the meeting.
- NRC stated that the information provided in the detailed presentation was very helpful in substantiating industry's approach to managing gas accumulation.

Industry Feedback on NRC Temporary Instruction

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Industry made the following comments on the NRC's document. The actions described below will be completed and the results sent to the NRC (W Lyon) by June 17th.

- Design verification versus operability determination – Some of the wording in the NRC TI implies that operability determinations related to gas voids should be developed to a different standard (more design verification in nature) than that used for other operability determinations. NRC stated that this was not its intent, but licensees must be responsible for the adequacy of their operability determinations. To help clear up this implication, NRC tentatively agreed to remove the word "final" from the description on operability findings in section 1.2. Industry was satisfied with this change.
 - **ACTION:** NRC remove the word "final" from the description on operability findings in section 1.2
- Dynamic Venting – Industry presented a draft approach to defining adequate dynamic venting time. This approach must be finalized.
 - **ACTION:** Industry finalize the dynamic venting guidance and include in the revision to NEI 09-10
- Table of allowable void fractions – The feedback on the blanks in the table and the actions resulting from the discussion is presented above. Industry accepted several additional actions to further explain the use of the information in this table.
 - **ACTION:** Improve the explanation of the purpose of the two tables in APC 09-20 (table 1 criteria are intended to prevent mechanical damage to the pump, table 2 criteria are intended to preclude significant reduction in discharge head).
 - **ACTION:** Expand the list of limitations for use of the simplified equation and allowable pump void criteria.
 - **ACTION:** Provide guidance on slug flow in relation to table criteria.
- Pump testing Guidance – section 1.9 of the TI contains guidance on pump testing. The basis for some of the guidance in this table is not apparent and the language it uses may confuse its guidance with tech spec requirements.
 - **ACTION:** Industry will draft revised version of this paragraph and submit it to the NRC.
- Effect on operability of failure of a relief valve to reseal – The language used in section 1.10 implies that failure of a relief valve to reseal makes the system inoperable. This is not necessarily the case.
 - **ACTION:** Industry to suggest words to clarify this condition.
- NPSH – The NRC remains satisfied with the industry's position that NPSH is not a significant concern for gas void conditions. No additional action is required on this subject at this time.

General

- **ACTION:** Industry will complete its comments on the temporary instruction in accordance with the actions above and submit to the NRC by June 18th.
- **ACTION:** Westinghouse to submit its proprietary presentations to the NRC.